

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

(Group 8/8)

(Phosgene, MIC, Sevin)

Permit Number: **R30-03900007-2012**

Application Received: **April 20, 2011**

Plant Identification Number: **03900007**

Permittee: **Bayer CropScience**

Facility Name: **Institute Site**

Mailing Address: **P.O. Box 1005
Institute, WV 25112**

Physical Location: Institute, Kanawha County, West Virginia
UTM Coordinates: 432.0 km Easting • 4,248.3 km Northing • Zone 17
Directions: The facility is located west of Institute, WV, adjacent to State Route 25 and West Virginia State College.

Facility Description

Bayer CropScience, an agricultural chemical based company, operates a multi-product, multi-process chemical plant. The Plant has five basic manufacturing units along with several other production facilities primarily responsible for producing raw materials used in the manufacture of agricultural chemicals. The principal products produced at the Institute site are SEVIN brand carbaryl, TEMIK brand aldicarb, LARVIN brand thiodicarb, methomyl, RHODIMET AT-88, oxamyl, BPMC, Carbofuran, and Carbosulfan. SIC Codes: 2879; 2869

Group Description

The facility was divided into 8 Title V Permits. They were broken down as follows:
Group 1 – Powerhouses, Maintenance, Wastewater Treatment Unit, Laboratories
Group 2 – Rhodimet

- Group 3 – Carbofuran Unit, Carbosulfan Unit
- Group 4 – Aldicarb, BPMC, Oxamyl
- Group 5 – Polymers (Note this process was closed in 2004 and no Title V Group 5 Permit was issued)
- Group 6 – Larvin Unit
- Group 7 – Naphthol Unit, PANA, Jet
- Group 8 – Phosgene, MIC, SEVIN

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions (Group 8)	2010 Actual Emissions (Facility Wide)
Carbon Monoxide (CO)	20.35	82
Nitrogen Oxides (NO _x)	60.05	2,310
Particulate Matter (PM ₁₀)	<0.01	21.1
Total Particulate Matter (TSP)	0.03	42.2
Sulfur Dioxide (SO ₂)	0.02	2,451
Volatile Organic Compounds (VOC)	86.39	123.9
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions (Group 8)	2010 Actual Emissions (Facility Wide)
Carbaryl	36.24	0.06
Hydrogen Chloride	17.03	91.8
Methyl Isocyanate	0.29	0.24
Phosgene	0.03	0.02
Toluene	27.99	0.65
Carbon Tetrachloride	0.33	0.02
Chloroform	4.24	1.63
Benzene	0.04	0.22
Chlorine	0.08	0.12
Methyl Chloride	< 0.01	1.78
Total HAPs	86.27	131.99

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 459 TPY of CO, 6,951 TPY of NO_x, 185 TPY of PM₁₀, 11,143 TPY of SO₂, 620 TPY of VOC, and 920 TPY of Total HAP. Due to this facility's potential to emit over 100 tons per year of CO, NO_x, PM₁₀, SO₂, VOC, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAP, Bayer CropScience is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

Group 8 at this facility* has been found to be subject to the following applicable rules:

Federal and State:	45CSR6 45CSR7 45CSR11 45CSR13 45CSR16 45CSR21-5, 9, 41 WV Code § 22-5-4 (a) (14) 45CSR30 45CSR34 40 C.F.R. Part 61 40 C.F.R. Part 63, Subparts F, G, H 40 C.F.R. Part 60, Subpart VV	Open burning prohibited. Particulate Matter Emissions Standby plans for emergency episodes. Permits for construction, modification, relocation, etc. New Stationary Sources Volatile Organic Compound emissions The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. Emission standards for HAPs Asbestos inspection and removal Hazardous Organic NESHAP (HON) Equipment Leaks
State Only:	45CSR4 45CSR21-37, and 40 45CSR27	No objectionable odors. Volatile Organic Compound Emissions Toxic Air Pollutants

*Other groups at this facility may be subject to additional applicable state and federal rules.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-223	5/28/1976	
R13-226	5/21/1976	
R13-1300A	8/11/2010	

R13-1590	5/14/1993	
CO-11-88-10*	12/16/1988	
CO-27-92-12	4/30/1992	
CO-21-97-4	2/19/1997	

* - This Consent Order does not have a formal Consent Order Number. It is a Rule 11 Consent Order, signed in 1988, and found on page 10 of the Consent Order list.

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Changes made to the most recent version to this Title V Permit are summarized below:

1. 45CSR40 – CAIR NO_x Season Trading Program
Previous Condition 3.1.9 addressed the NO_x Budget Trading Program from 45CSR1. The trading program per 45CSR1 has since been repealed and replaced with the CAIR NO_x Ozone Trading Program from 45CSR40. However, the emissions sources that fall under 45CSR40 for this facility are three boilers, which are regulated under the Group 1 Permit. Therefore, this requirement has been removed from this Group 8 Permit.
2. Miscellaneous
Added Table 1.2 and other changes have been made to the Permit boilerplate. Removed the citation 45CSR§30-5.1.c from conditions 5.4.6, 5.4.7, and 5.4.8. The previous citation was for a voluntary requirement. Since the most recent version of the permit, these conditions are now required by R13-1300.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

1. 40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)

Group 8 is not subject for the following reasons:
40CFR§64.2(a)(3) – This Group does not have an emissions unit with potential pre-control device emissions (criteria and HAP) equal to or greater than 100 percent of the amount, in tons per year, of any pollutant that would require the facility to be classified as a major source.
2. Greenhouse Gas Tailoring Rule
This is a renewal Title V Permit and there have been no changes that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: December 16, 2011
Ending Date: January 17, 2012

All written comments should be addressed to the following individual and office:

Mike Egnor
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Mike Egnor
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1208 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.